

AMENDMENT UNDER 37 C.F.R. § 1.111
Application No.: 10/694,174
Atty Docket No.: Q78261

REMARKS

The Office Action of July 2, 2004 has been received and its contents carefully considered.

Claims 1 to 9 are all the claims pending in the application, prior to the present amendment.

Applicants have added new dependent claims 10 and 11. Support for claim 10 can be found at, for example, pages 5 and 8 of the specification. Support for claim 11 can be found at page 25.

Claims 1-9 have been rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent 4,701,364 to Miyoshi et al.

Applicants submit that Miyoshi et al do not disclose or suggest the subject matter of claims 1 to 9 and, accordingly, request withdrawal of this rejection.

The present invention as set forth in claim 1 is directed to a method for cleaning a magnetic head using a cleaning tape comprising a substrate and a cleaning layer, wherein the cleaning tape has a stiffness of 2 or less in a width direction, and the magnetic head has trenches substantially parallel to a sliding direction of the cleaning tape.

The Miyoshi et al patent discloses a tape for cleaning a magnetic head, where the tape comprises a substrate and a cleaning layer.

AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/694,174

Atty Docket No.: Q78261

Miyoshi et al, however, do not disclose that the magnetic head has trenches substantially parallel to a sliding direction of the cleaning tape.

Accordingly, applicants submit that Miyoshi et al do not anticipate claim 1.

Further, applicants submit that the present invention is not obvious from the teachings of Miyoshi et al.

In a case where a trenched head is in use, the spacing between the tape and the head is reduced, since the air accompanied by the running cleaning tape is eliminated. The trenches act to suck the air. See the attached enclosed Digital Instrumentation Recorder information sheet.

The present invention has the technical task of finding a method of head cleaning capable of compensating for the change in the radius of curvature due to head abrasion in a system in which the spacing is very small, thus achieving an intimate head contact, and has found, as a solution for the task, to regulate the stiffness of the cleaning tape in the width direction so as not to exceed 2.

Miyoshi et al have the technical task of obtaining a cleaning tape capable of removing head clogging in a short period of time without damaging the magnetic head, as disclosed at column 2, lines 6 to 9, but do not have the task of finding a cleaning method capable of compensating for the change in the radius of curvature due to the abrasion of a head with trenches as in the present invention. Miyoshi et al, which do not have the technical task of the present invention, have no motivation of devising the present invention.

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Moreover, Miyoshi et al disclose a cleaning tape having a stiffness of 2 or less, but contain no description at all on a magnetic head with trenches according to the present invention. The heads used in the examples of Miyoshi et al are not of the type with trenches, either.

Also, Miyoshi et al do not contain any suggestion or description on regulating the stiffness of the cleaning tape in the width direction so as not to exceed 2 in order to achieve a cleaning method capable of compensating for the change in the radius of curvature due to the abrasion of a head with trenches. Therefore, applicants submit that one of ordinary skill in the art would not have been led to devise the present invention from the teachings of Miyoshi et al, which include no suggestion or description on the specific constitution of the present invention.

Still further, the present invention exhibits a remarkable effect on achieving a cleaning method capable of compensating for the change in the radius of curvature due to the abrasion of a head with trenches by regulating the stiffness of a cleaning tape to be 2 or less in the width direction. Such an effect is too remarkable to be predicted from the cleaning effect as well as the head damage-preventing effect of a head without trenches set forth in Miyoshi et al.

As has been discussed above, the present invention is not identical to or suggested by the teachings of Miyoshi et al.

In view of the above, applicants submit that Miyoshi et al do not defeat the patentability of the present claims and, accordingly, request withdrawal of this rejection.

AMENDMENT UNDER 37 C.F.R. § 1.111


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Atty Docket No.: Q78261

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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CUSTOMER NUMBER

Date: October 4, 2004